

JON M. HUNTSMAN, JR. Governor

GARY R. HERBERT Lieutenant Governor

Department of Administrative Services

D'ARCY DIXON PIGNANELLI Executive Director

Division of Facilities Construction and Management

Director

MEMORANDUM

3 May 2005 Date:

To: Consultants

From: Vic Middleton, DFCM

Reference: **Draper Prison**

> **Vocational Training Center** DFCM Project No. 04256100

Subject: Addendum No. 1

Addendum **Pages** 1 pages

> Architectural Addendum Attachment 33 pages Total 34 pages

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in this Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

1.1 General:

- 1.1.1 This Cover Sheet serves both as a Notice of the Addendum #1that is available in full (34 pages) on the DFCM web site, www.dfcm.utah.gov and as the first page of the addendum.
- 1.1.2 Attached is a 33 page addendum from AJC Architects, included are 22 - 8.5 x 11 pages and 11 - 11 x 17 pages.

End of Addendum





addendum # 1

Draper Prison Vocational Training Center

Draper Utah

ajc architects project #: 0502 dfcm project #: 04256100

date:

Tuesday, May 03, 2005

time:

2:28 PM

pages:

33

The bidders on the above captioned project shall be governed by the following changes, additions, and/or deletions in the Drawings and Specifications. This Addendum shall be included as part of the Contract Documents.

Items

- Item 1: Building to be located approximately 16'-10" south of current project location to provide for more room for the paint booth at the north end of the building. See attached revised sheets C101,C201,C401, AS101 and AS102.
- Item 2: Approximately 120'-4 1/2" lineal feet of fencing is to be removed. Approximate height of fence is 4"-0" from grade See attached revised sheet AS101.
- Item 3: Paint booth to be located outside of building, rotated and fully sprinklered.

 Concrete slab size at north exterior of building to be increased to 24'-4" x 14'-8"

 see attached revised sheet AS102 and AE103 and electrical addenda.
- Item 4: Dust extraction system to be relocated to north end of building See attached revised sheet AE103 and electrical addenda.
- Item 5: Provide additional eye wash station and gang hand wash station in wood shop area see attached revised sheets AE101, AE102, AE103 and mechanical addenda.
- Item 6: Clarification erroneous key notes removed from sheet AE102 between grids 4 and 5 and A.2. See attached revised sheet AE102.
- Item 7: Exterior wall at grid line A to be rated one (1) hour. See attached supplemental drawing AD1.1 and AD1.2 for assembly and UL listing. See attached revised sheet AE601 for revised door schedule and attached revised overhead coiling door specification section 08331 included herein in its entirety. See electrical addenda for fire alarm interlock.
- Item 8: Restroom layouts to be revised to allow wider access isle to accessible stalls.

Janitor Closet 014 and Storage 013 to be reduced in size and doors 23 and 26 to be changed to double doors. See attached revised sheet AE401 and AD1.3.

- Item 9: All insulating material, where exposed, shall have a flame spread index of not more than 25 and a smoke developed index of not more than 450.
- Item 10: Floors in Rest Rooms 011 and 012 to be sealed concrete see attached revised sheet AE601 for finish.
- Item 11: Hardware Group 8 labeled incorrectly on bid documents as Hardware Group 7 see attached revised sheet AE601 for hardware groups.
- Item 12: Approved Architectural Substitution Requests:

Provided the products listed below meet all requirements as set forth in the project manual, they are approved for inclusion in bid. Full submittals verifying compliance will be required.

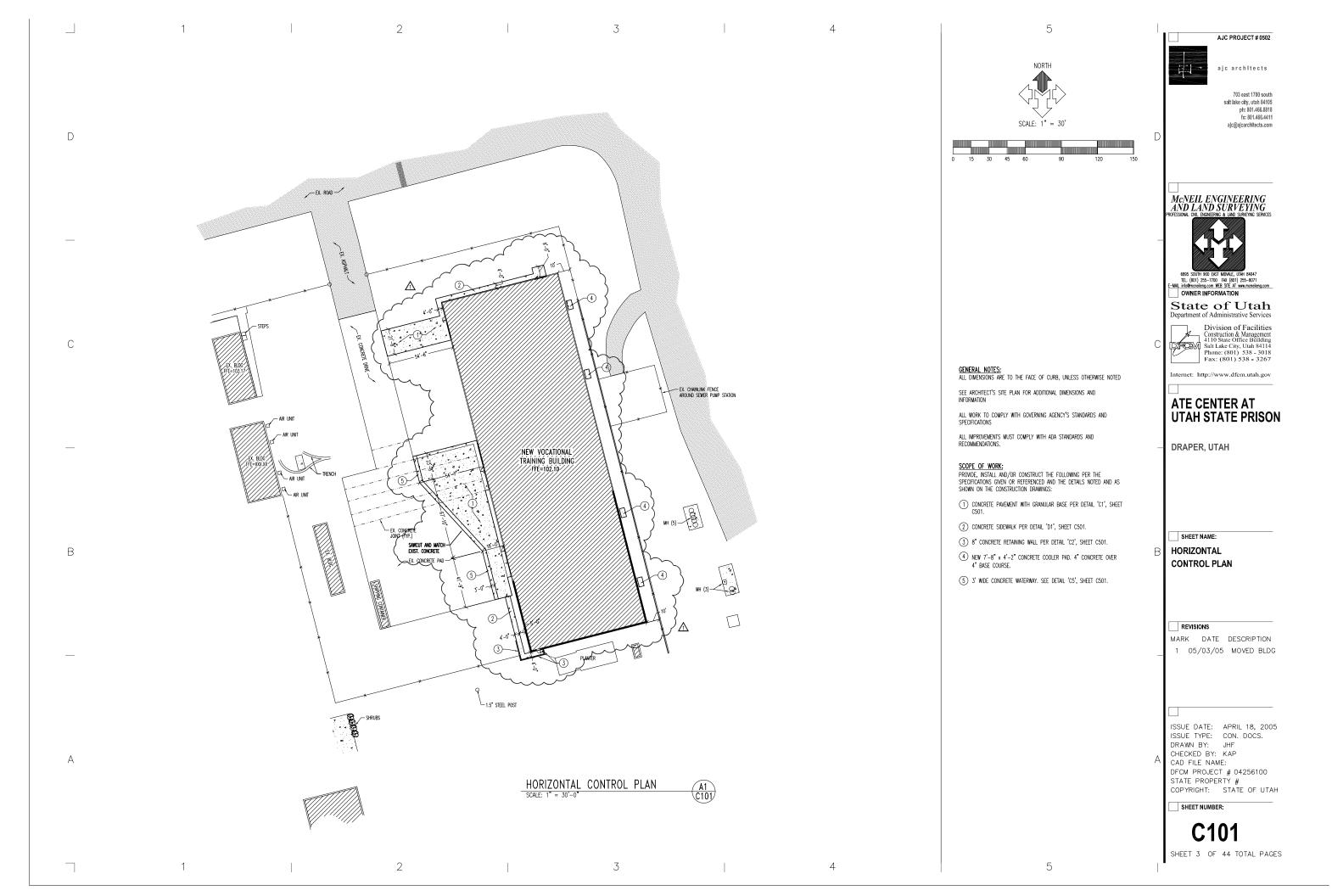
- a. Hager Thresholds -specification section 08711.
- b. Flush Metal Toilet Partitions (solid phenolic) specification section 10155.
- c. Global Toilet Partitions (solid phenolic) specification section 10155.
- Item 13: Provide 3'-0" waterway as indicated on attached revised C101 and C501.
- Item 13: See attached Mechanical Addenda.
- Item 14 See attached Electrical Addenda.

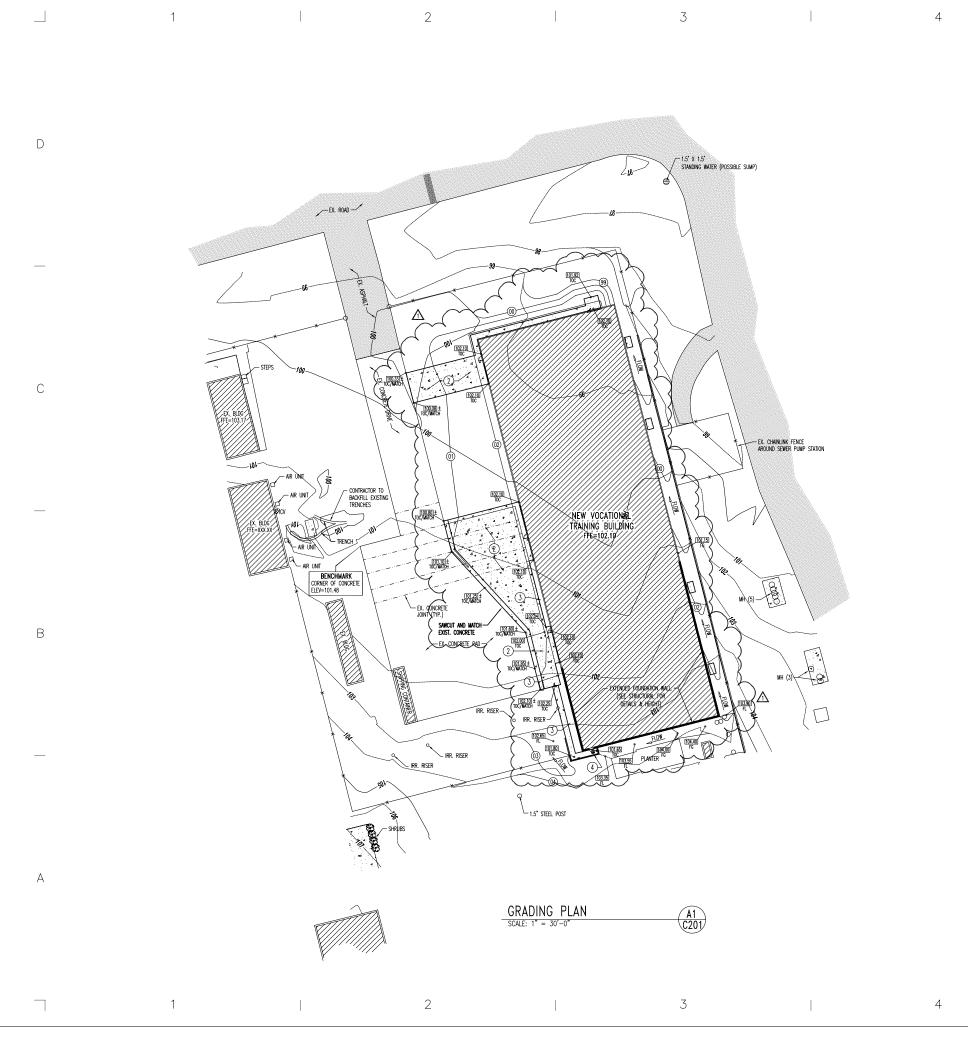
END OF ADDENDUM

Brad Ashworth AIA

attachments:

Sheets C101,C201,C401,C501,AS101,AS102,AE101.AE102,AE103,AE401,AE601, AD1.1, AD1.2, AD1.3.







SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOLLS REPORT THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YELDING OR UNSUTINEE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM TEST D-1557 EXCEPT UNDER BUILDING FOUNDATION WHERE IT SHALL BE 98% MIN. OF MAXIMUM DENSITY. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM.
CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED REGISTERED SOILS ENGINEER, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED, HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS & SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.

THE CONTRACTOR IS TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL FOR CONSTRUCTION OF THIS PROJECT. SPECIFIC DETAILS SHOWN ON SHEET C2.02 SHALL BE USED IN COMBINATION WITH OTHER

EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIEY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS:

- ① GRADE SITE TO ELEVATIONS AND CONTOURS SHOWN ON PLAN.
- $\ensuremath{\bigcirc}$ Concrete pavement with untreated base course per detail 'C1', sheet C501.
- 3 8" THICK BED OF WASHED GRAVEL.
- 4 INSTALL NEW FLOOR DRAIN WITH 1 CU.YD. GRAVEL.

AJC PROJECT # 0502



ajc architects

703 east 1700 south salt lake city, utah 84105 ph: 801.466.8818 fx: 801.466.4411 ajc@ajcarchItects.com

McNEIL ENGINEERING AND LAND SURVEYING



State of Utah



Division of Facilities
Construction & Management
4110 State Office Building
Salt Lake City, Utah 84114
Phone: (801) 538 - 3018
Fax: (801) 538 - 3267

Internet: http://www.dfcm.utah.gov

ATE CENTER AT **UTAH STATE PRISON**

DRAPER, UTAH

SHEET NAME:

GRADING PLAN

REVISIONS

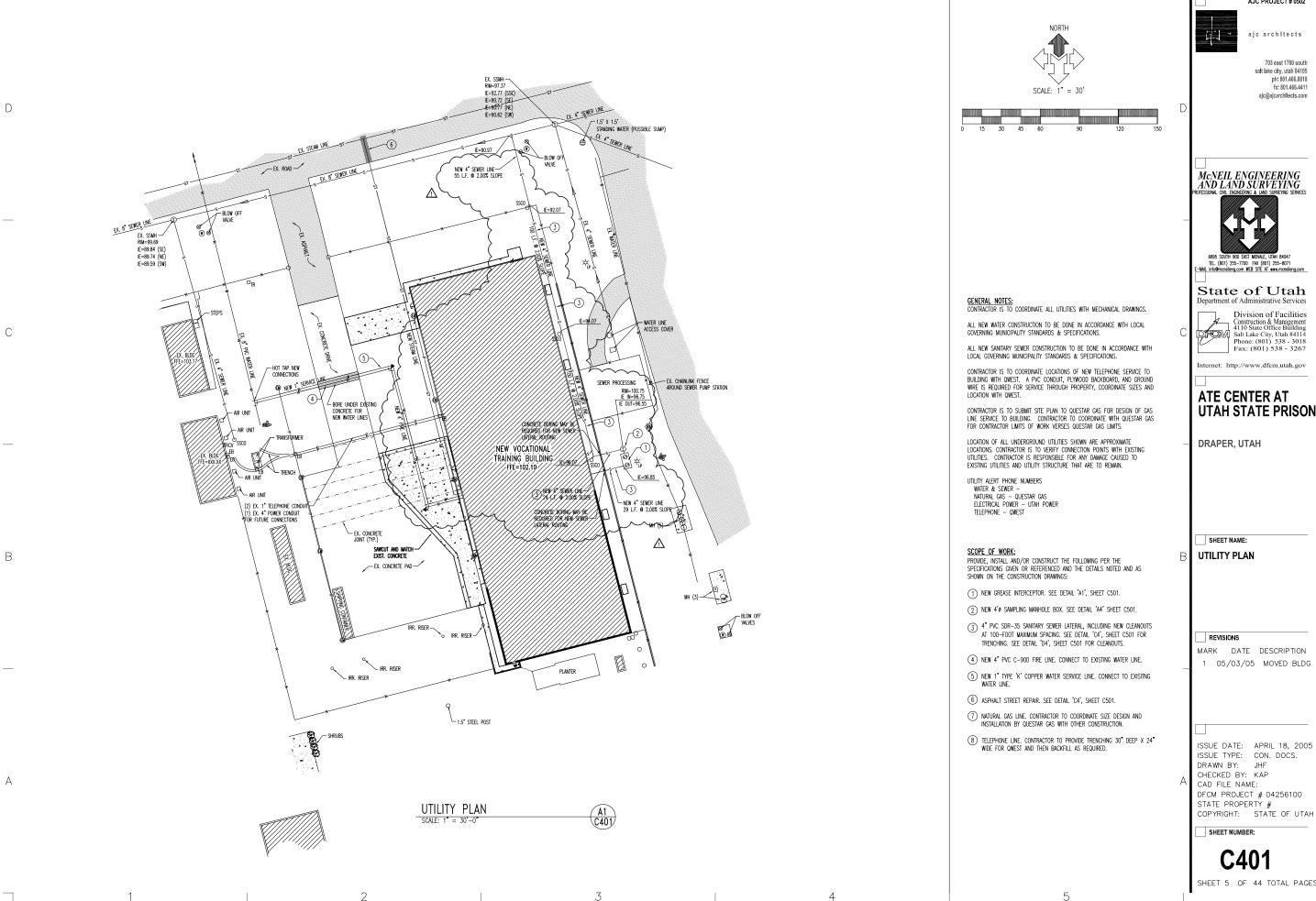
MARK DATE DESCRIPTION 1 05/03/05 MOVED BLDG

ISSUE DATE: APRIL 18, 2005 ISSUE TYPE: CON. DOCS. DRAWN BY: JHF CHECKED BY: KAP CAD FILE NAME: DFCM PROJECT # 04256100 STATE PROPERTY #
COPYRIGHT: STATE OF UTAH

SHEET NUMBER:

C201

SHEET 4 OF 44 TOTAL PAGES



4

2 3

1

AJC PROJECT # 0502

ajc architects

703 east 1700 south salt lake city, utah 84105 ph: 801.466.8818 fx: 801.466.4411 ajc@ajcarchItects.com

McNEIL ENGINEERING AND LAND SURVEYING



State of Utah

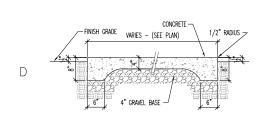
Internet: http://www.dfcm.utah.gov

ATE CENTER AT UTAH STATE PRISON

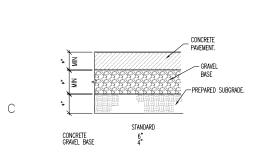
1 05/03/05 MOVED BLDG

ISSUE TYPE: CON. DOCS. CHECKED BY: KAP DFCM PROJECT # 04256100 STATE PROPERTY # COPYRIGHT: STATE OF UTAH

SHEET 5 OF 44 TOTAL PAGES

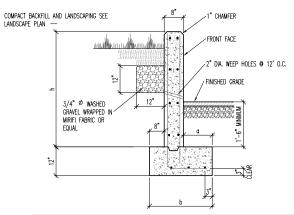


STD. SIDEWALK



CONCRETE PAVEMENT SECTION QL

В



			RETAININ	G WALL SCHED	ULE	
WA	LL DIMEN	SIONS		R	EINFORCING BAR	S
h	a	b	BACK VERTICAL	FACE HORIZONTAL	FRONT-FACE EACH-WAY	FOOTING LONGITUDE
3'-0"	8"	2'-0"	#5 @ 16" O.C.	#4 @ 24" O.C.	#4 @ 24" O.C.	(2) #4
4'-0"	1'-2"	2'-6"	#5 @ 16" O.C.	#4 @ 24" O.C.	#4 @ 24" O.C.	(2) #4
5'-0"	1'-8"	3'-0"	#5 @ 16" O.C.	#4 @ 24" O.C.	#4 @ 24" O.C.	(3) #4
6'-0"	2'-8"	4'-0"	#5 @ 12" O.C.	#4 @ 18" O.C.	#4 @ 18" O.C.	(4) #4
6'-6"	3'-2"	4'-6"	#5 @ 12" O.C.	#4 @ 12" O.C.	#4 @ 16" O.C.	(5) #4

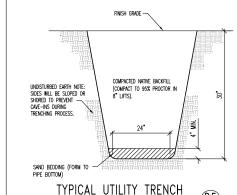
NOTES: 1. PROVIDE 2"ø WEEP HOLES @ 12' O.C. AND CONTROL JOINTS @ 12' O.C.

2. PROVIDE EXPANSION JOINTS @ 48' O.C. (FULL BREAK). SLEEVE HORIZONTAL STEEL

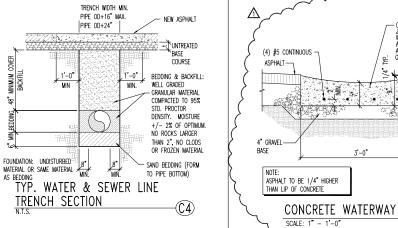
RETAINING WALL SECTION SCALE: 3/4"= 1'- 0"

BRASS CLEANOUT PLUG W/ COUNTER SUNK HEAD FINISH GRADE 20" SQUARE X 6" CONC. PAD - TROWEL SMOOTH AND EDGE. 1/8 BEND WASTE LINE LENGTH DRAIN LINE 1/8 REND IF CLEANOUT

CLEANOUT DETAIL



TYPICAL UTILITY TRENCH



TROUGH THRU MANHOLE -

REINFORCED FIBERGLASS OR

PLASTIC MANHOLE STEPS @ 12"

PROCESS FLOW

PRECAST CONC. BASE SECTION W/ FLOOR SHAPED TO FIT PIPE CONFIGURATION AS SHOWN ON PLAN CONCRETE WATERWAY JOINTS @ 10 -0" O.C. WITH EXPANSION JOINT SLOPE (TYP.) - ROAD BASE - COMPACTED

SECTION

Division of Facilities Construction & Management 4110 State Office Bülding Salt Lake City, Utah 84114 Phone: (801) 538 - 3267 Internet: http://www.dfcm.utah.gov **ATE CENTER AT UTAH STATE PRISON**

McNEIL ENGINEERING AND LAND SURVEYING

TEL. (801) 255-7700 FAX (801) 255-8071 info@mcneileng.com WEB SITE AT www.mcneile

State of Utah

AJC PROJECT # 0502

ajc archItects

703 east 1700 south

ph: 801.466.8818 fx: 801.466.4411

salt lake city, utah 84105

ajc@ajcarchItects.com

DRAPER, UTAH

SHEET NAME:

MISCELLANEOUS SITE DETAILS

REVISIONS

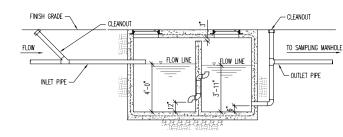
MARK DATE DESCRIPTION 1 05/03/05 MOVED BLDG

ISSUE DATE: APRIL 18, 2005 ISSUE TYPE: CON. DOCS. DRAWN BY: JHF CHECKED BY: KAP CAD FILE NAME: DFCM PROJECT # 04256100 STATE PROPERTY #
COPYRIGHT: STATE OF UTAH

B SECTION

FLOW

- PIPING, CLEANOUT CONFIGURATION, SIZE AND TYPE OF PIPING MATERIAL AS PER CITY OR SANITARY DISTRICT. INSPECTION BY SWWRD PRIOR TO BACKFILLING IS REQUIRED.
- INTERCEPTOR PIPING AND OTHER ASSOCIATED PIPING CHANGES THAT ARE NECESSARY TO INSTALL INTERCEPTOR MUST BE IN ACCORDANCE WITH LOCAL REGULATIONS.
- 3. INTERCEPTOR MUST BE PROPERLY VENTED IN ACCORDANCE WITH UNIFORM PLUMBING CODE
- 4. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- 5. REINFORCEMENT STEEL SHALL BE ASTM A615 GRADE 60.
- 6. THE CONCRETE COVER OVER REINFORCEMENT STEEL SHALL BE A MINIMUM OF 1-1/2 INCHES.
- 7. THE STRUCTURE SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH
- 8. THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING LOADING CRITERIA:
- A) WALLS DESIGNED FOR A SATURATED EQUIVALENT FLUID AT-REST SOIL PRESSURE OF 90 PCF PLUS TRUCK SURCHARGES. B) TRUCK LOADING USING AN AASHTO H-20 TRUCK LOAD.
- 9. MANWAY FRAME & COVER SHALL BE A TRAFFIC TYPE CASTING FOR H-20 TRUCK LOAD.
- 10. THE INLET PIPE SHALL BE AT AN ELEVATION 1" HIGHER THAT THE OUTLET PIPE
- 11. WHERE THE SEWER LINE ALREADY EXISTS, THE SEWER INVERT INTO AND OUT OF THE INTERCEPTOR SHALL BE 4'-0" ABOVE THE INTERCEPTOR FLOOR.
- 12. THE BAFFLE IN THE INTERCEPTOR SHALL BE WITHIN 3" OF THE CEILING.
- 13. COVERS SHALL BE CIRCULAR AND BE SOLID.
- 14. SANITARY WASTE FROM TOILETS MUST NOT BE PLUMBED THROUGH THE INTERCEPTOR.



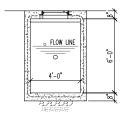
1200 GALLON 6'-0" 8" 1200 GALLON 5'-0'

SECTION (C)

PLAN - GREASE INTERCEPTOR

SECTION - GREASE INTERCEPTOR

GREASE INTERCEPTOR SCALE: N.T.S.



- PIPING, CLEANOUT CONFIGURATION, SIZE AND TYPE OF PIPING MATERIAL AS PER CITY OR SANITARY DISTRICT. INSPECTION BY SWWRD PRIOR TO BACKFILLING IS REQUIRED.
- 2. WIDTH OF TROUGH IN THE MANHOLE MUST BE THE SAME SIZE AS THE INLET PIPE INTO MANHOLE.
- DEPTH OF TROUGH MUST BE THE SAME AS 1/2 OF INLET PIPE DIAMETER.
- 3. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- 4. REINFORCEMENT STEEL SHALL BE ASTW A615 GRADE 60.
- 5. THE CONCRETE COVER OVER REINFORCEMENT STEEL SHALL BE A MINIMUM OF 1–1/2 $\,$ INCHES.
- 6. THE STRUCTURE SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH.
- 7. THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING LOADING CRITERIA
- A) WALLS DESIGNED FOR A SATURATED EQUIVALENT FLUID AT-REST SOIL PRESSURE OF 90 PCF PLUS TRUCK SURCHARGES.
- B) TRUCK LOADING USING AN AASHTO H-20 TRUCK LOAD. 8. MANHOLES OVER 4 FEET IN DEPTH WILL HAVE STAINLESS OR PLASTIC STEPS.
- 9. ALL MANHOLES MUST HAVE ROUND NOTCHED COVERS WITH PICK HOLE FOR REMOVAL.
- FOR NEW CONSTRUCTION, BOTTOM OF INLET PIPE INTO MANHOLE MUST BE AT LEAST 3 INCHES ABOVE THE BOTTOM OF THE TROUGH THRU THE MANHOLE.

FING AND COVER -PICK HOLE REQUIRED IN COVER FINISH GRADE-_USE FLAT CONCRETE TOP REINFORCED FIBERGLASS OR PLASTIC SECTION - PLAN VIEW MANHOLE STEPS @ 12" O.C. ALL WEATHER BUTYL
— SEALANT IN ROPE FORM AT PRECAST CONC. SECTION -ALL JOINTS SEAL ALL LIFT PRECAST CONC. BASE SECTION -HOLES W/ NON- SHRINK SEE NOTE #10 -SEAL PIPE IN MANHOLE WITH NON-SHRINK GROUT TYP. - SLOPE 1/2" PER FOOT INTO TROUGH DEPTH OF TROUGH MUST BE SAME AS 1/2 DIAMETER OF MANHOLE INLET PIPE AND TROUGH WIDTH MUST BE SAME AS INLET 6" BEDDING OF 1" CLEAN ANGULAR GRAVEL SECTION - MANHOLE PIPE DIAMETER

PLAN - MANHOLE

SAMPLING MANHOLE BOX 3' TO 7' DEEP SCALE: N.T.S.

4

2

- SEWER PIPE

SANITARY PIPING FROM TOILETS

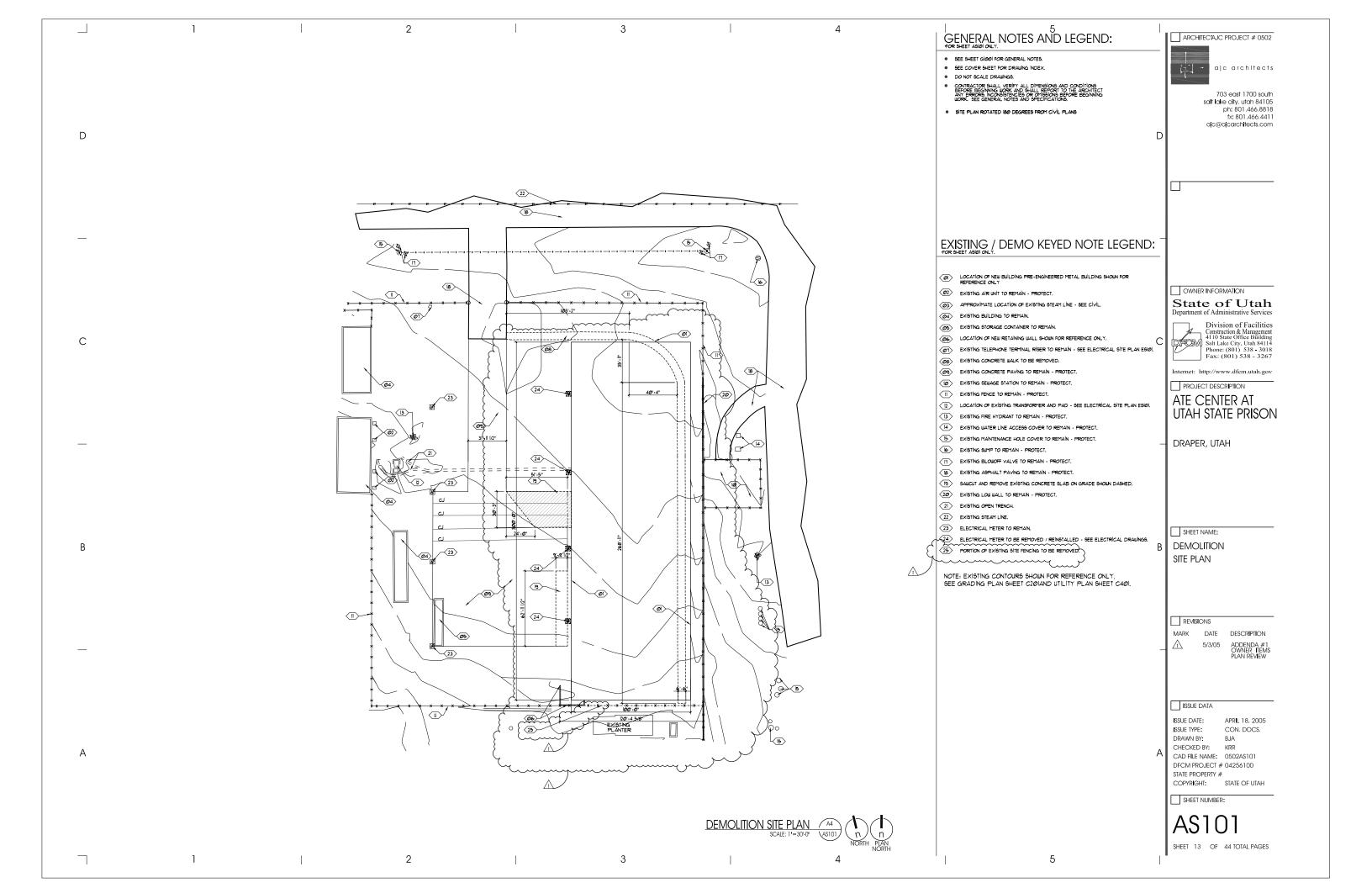
MUST TIE IN DOWNSTREAM FROM SAMPLING MANHOLE.

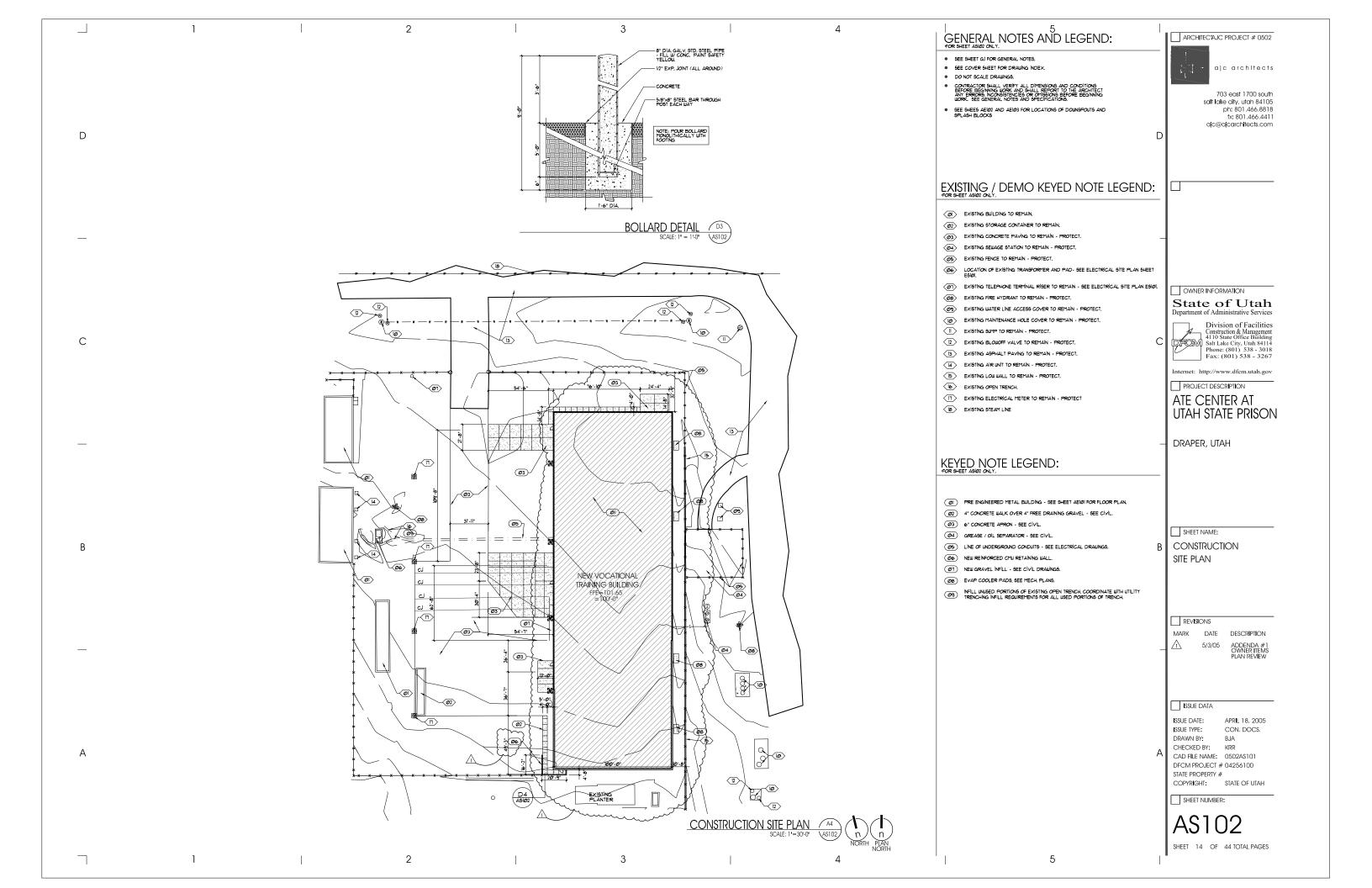
5

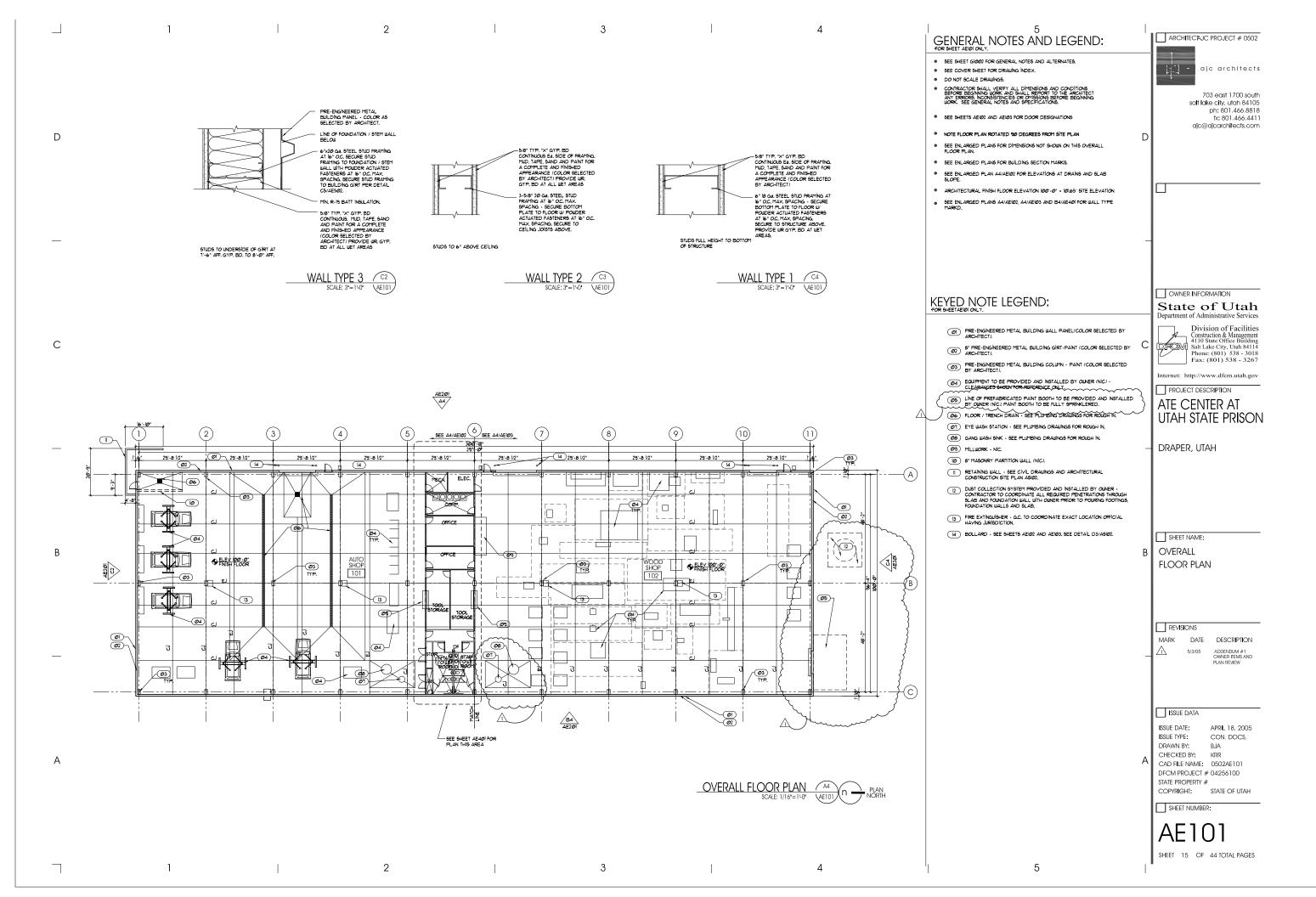
C501

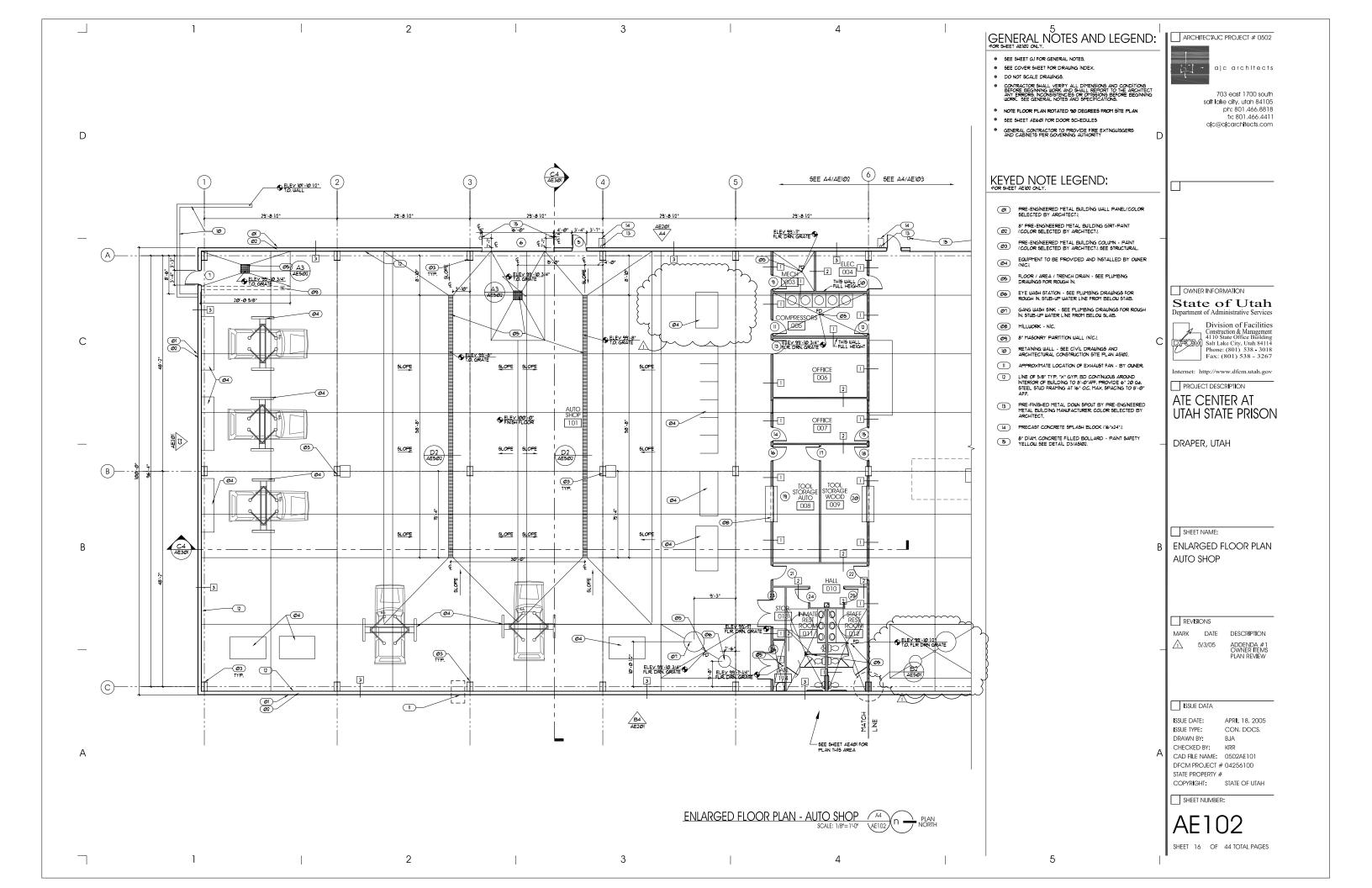
SHEET NUMBER:

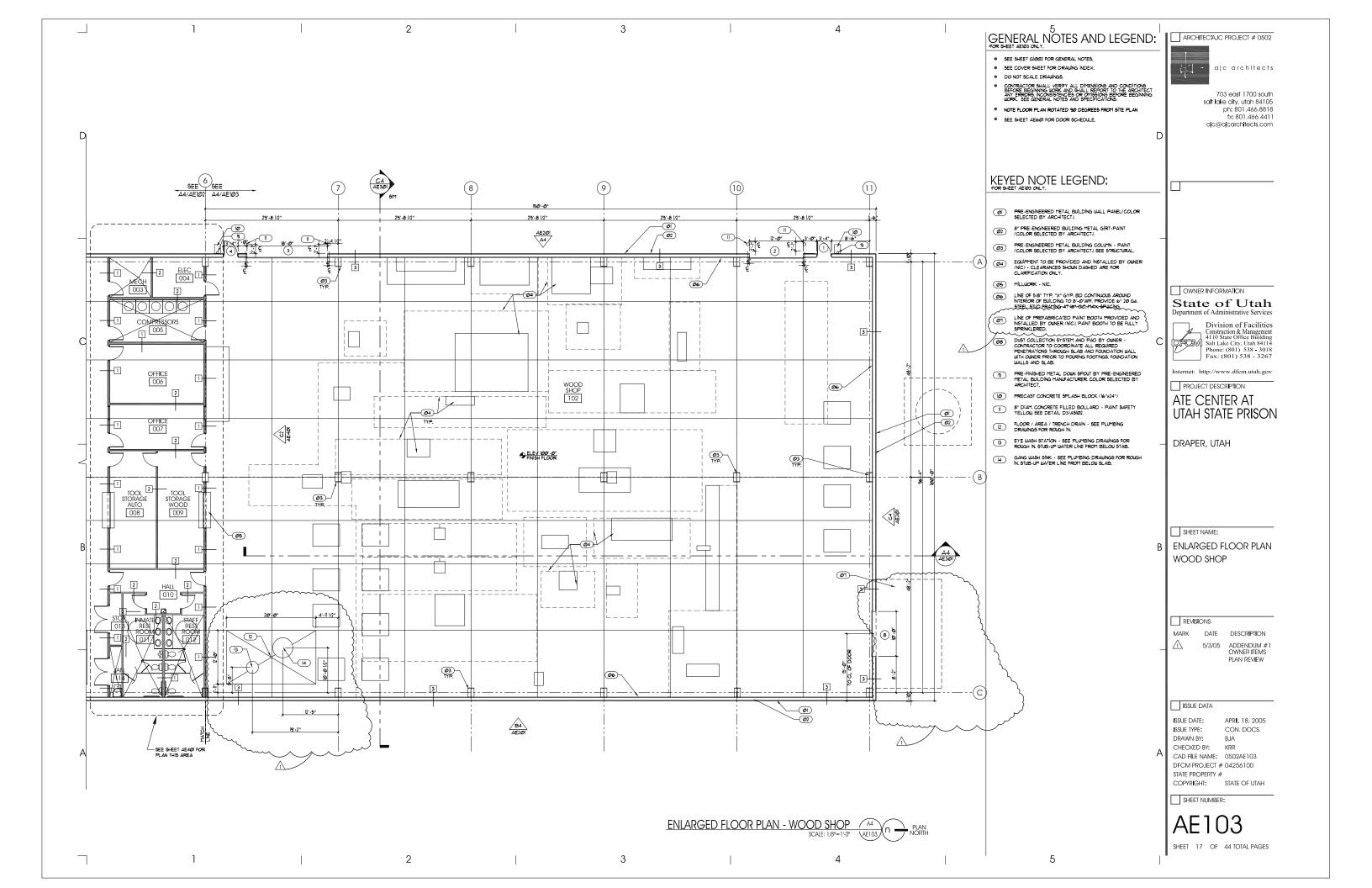
SHEET 6 OF 44 TOTAL PAGES

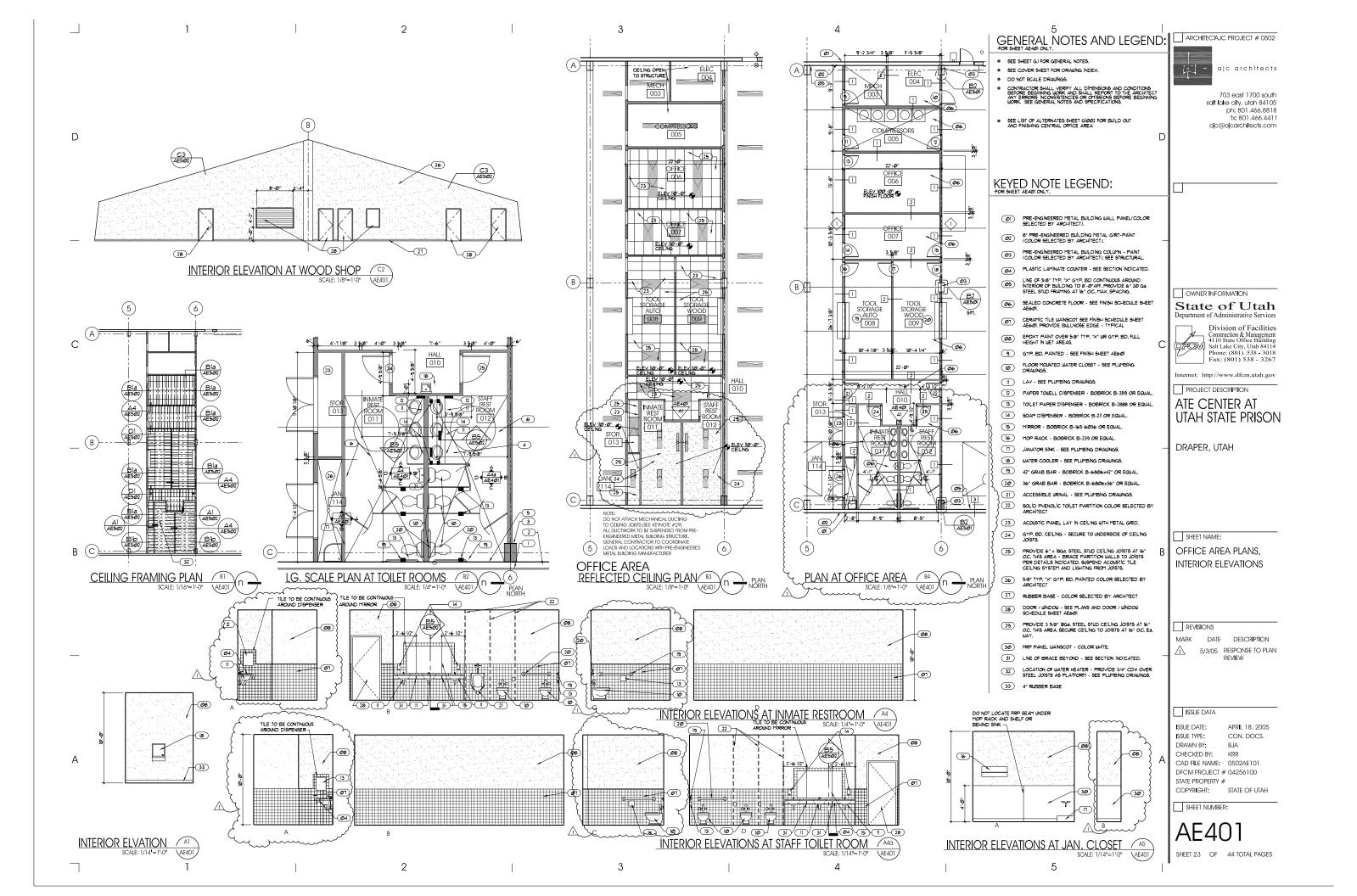


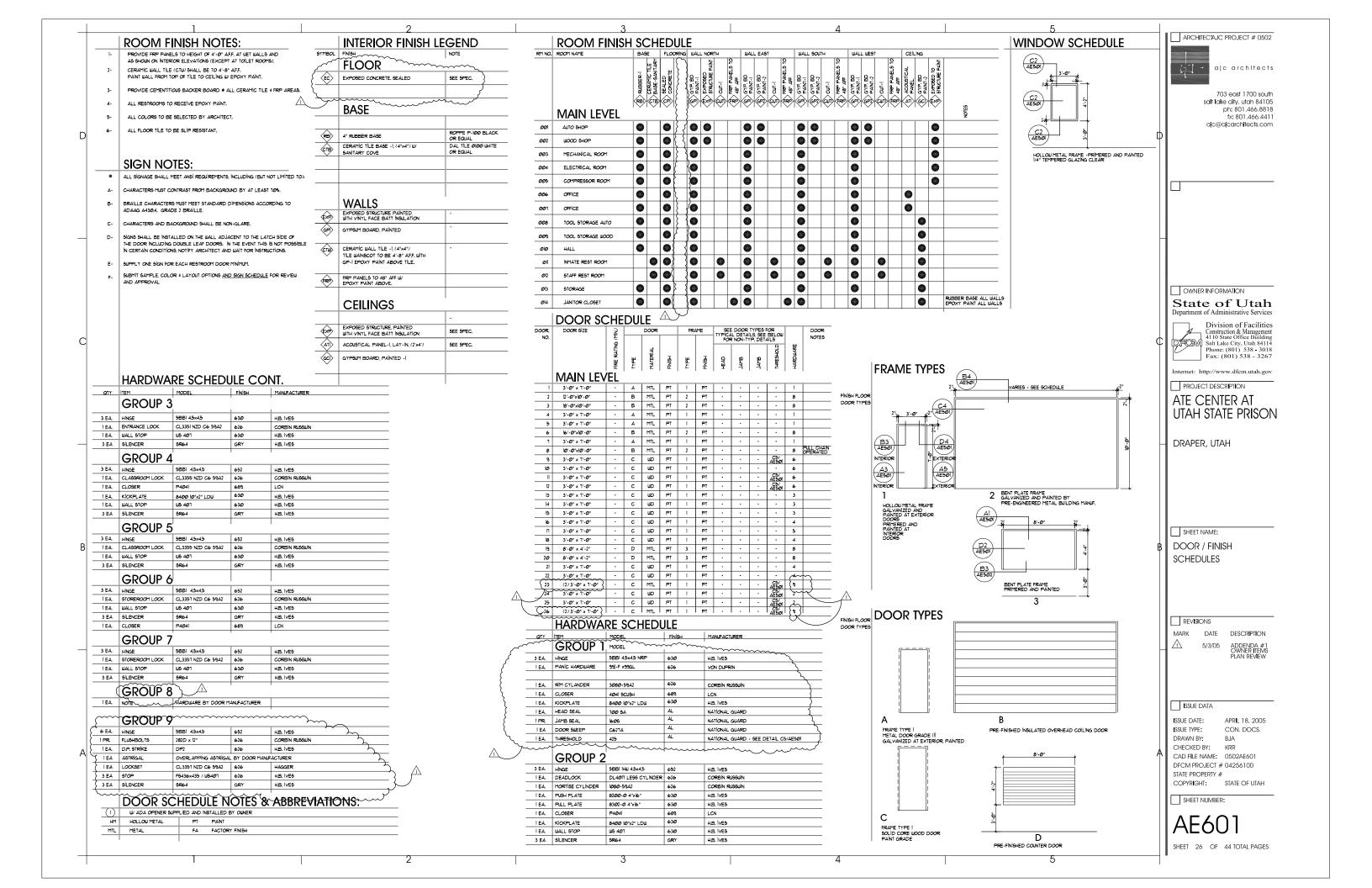


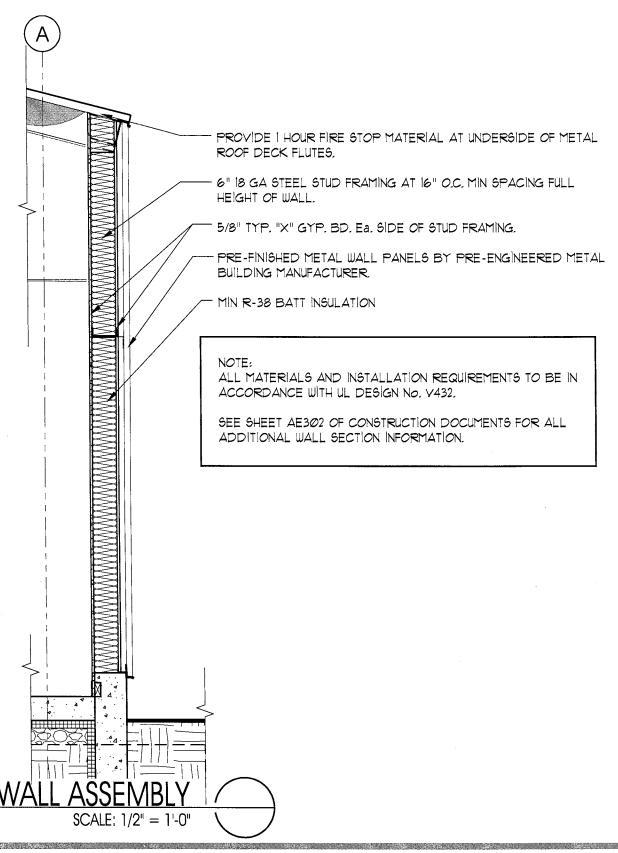














703 east 1700 south salt lake city, utah 84105 ajc@ajcarchitects.com

ajc architects

ph: 801.466.8818 fx: 801.466.4411 DRAPER PRISON ATE

0502 MAY 3, 2005

1 HOUR RATED

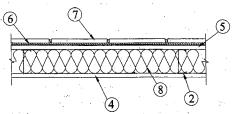
WALL ASSEMBLY AD1.1

FIRE RESISTANCE DIRECTORY (BXRH)

, Fire Resistance Ratings - ANSI/UL 263 (BXUV)-Continued

Design No. V432 (Exposed to Fire on Interior Face Only)

Bearing Wall Rating—1 Hr



1. Steel Floor and Ceiling Tracks — (Not Shown)—Top and bottom tracks of wall assemblies shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 GSG (0.036 in. thick) galvanized steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. OC.

2 Steel Studs — Correction protected steel stude min 2.1/2 in suide min.

Artached to 1000 atto celling assentiones what acceptance and the greater than 24 in. OC.

2. Steel Studs — Corrosion protected steel studs, min 3-1/2 in. wide, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 GSG (0.036 in. thick) gaivanized steel or No. 20 MSG (0.033 in. thick) primed steel, cold formed, shall be designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute (AISI). All design details enhancing the structural integrity of the wall assembly including the axial design load of the studs, shall be specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bothed connections designed in accordance with the AISI specifications.

or by welded or bolted connections designed in accordance with the AISI specifications.

3. Lateral Support Members — (Not Shown)—Where required for lateral support of studs, support may be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

4. Gypsum Board* — Any 5/8 in. thick (min) gypsum wallboard bearing the U.I. Classification Marking as to Fire Resistance: Applied vertically with Type S-12 steel screws, spaced 8 in. OC at edges and joints and 12 in. OC at the field. See Gypsum Board (CKNX) Category for names of Classified Companies.

Classified Companies.

Gypsum Sheathing* — Any 5/8 in. thick (min) gypsum sheathing bearing the Fire Resistance Classification Marking. Applied vertically and attached to studs and runner tracks with 1 in. long Type S-12 bugle head screws spaced 12 in. OC (max) along studs and tracks.

See Gypsum Board (CKNX) Category for names of Classified Compa

nies.

6. Wood Structural Panel Sheathing — (Optional)—Min 7/16 in. thick, 4 ft wide wood structural panels, min grade "C-D" or "Sheathing". Installed with long dimension of panel (strength axis) or face grain of plywood parallel with or perpendicular to studs. Vertical joints centered on studs. Horizontal joints backed with steel straps or channels (Item 3), min 1-1/2 in. wide by No. 20 GSG (0.036 in. thick) galvanized steel or No. 20 MSG (0.033 in. thick) primed steel, when specified in the design of a particular steel stud wall system. Sheathing attached over gypsum sheathing (Item 5) to studs and tracks with Type 5-12 bugle head screws; or No. 8 self-drilling /tapping steel screws; or min 0.100 in. diam. Hardened steel nails with helical or knurled thread (min sheathing fastener length equivalent to total thickness of gypsum and wood structural panel sheathing and steel framing plus 1/4 in.). Sheathing fasteners spaced min 6 in. OC at perimeter of panels and 12 in. OC along interior studs.

7. Exterior Facings — Installed in accordance with manufacturer's installation instructions and local building code requirements. One of the following exterior facings is to be applied over sheathing (Item 5 or 6 (if used)):

fused)):
A. Siding — Aluminum, steel or vinyl siding attached over sheathing to studs.
B. Brick Veneer — Any type of nom 4 in wide brick veneer. When brick veneer is used, the rating is applicable with exposure on either face. Brick veneer fastened with corrugated metal Wall ties attached over sheathing to steel studs with No. 6 steel screw per tie; ties spaced not more than each sixth course of brick. Min 1 in. air space provided between brick veneer and sheathing.

FIRE RESISTANCE DIRECTORY (BXRH)

Fire Resistance Ratings - ANSI/UL 263 (BXUV)-Continued

C. Particleboard Siding - Hardboard exterior sidings including

Particleboard Siding — Hardboard exterior sidings including patterned panel or lap siding.

D. Wood Structural Panel or Lap Siding — APA Rated Siding marked Exterior, plywood, CSB, or composite panels with veneer faces and structural wood core, per PS 1 or APA Standard PRP-108, including textured, rough sawn, medium density overlaid, benefit and proceed possible or lamifolding textured.

brushed, and grooved panels or lap siding.

E. Stucco — Portland cement type - min nom 3/4 in. thickness.
Metal lath or mesh base fastened over sheathing to steel studs
with No. 6 screws or other approved fasteners for attaching lath

with No. 6 screws or other approved fasteners for attaching lath to steel framing.

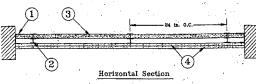
F. Exterior Insulation and Finish System (EIFS) — Nom 1 in. Foamed Plastic* insulation bearing the UL Classification Marking, attached over sheathing and finished with coating system, or Portland cement or synthetic stucco systems, in accordance with manufacturer's instructions. See Foamed Plastic (BRYX or CCVW) category for names of Classified companies.

8. Batts and Blankets* — Any glass fiber or mineral wool insulation bearing the UL Classification marking as to fire resistance, of a thickness to completely fill stud cavity. See Batts and Blankets (BKNV or BZIZ) category for names of Classified companies.

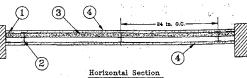
*Bearing the UL Classification Mark

Design No. V433 Nonbearing Wall Rating-1 or 2 Hr.

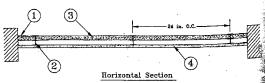
System A - 2 Hr.



System B - 2 Hr.



System C - 1 Hr.



1. Steel Framing Members (Floor, Side and Ceiling Runners)* — "]" |
-shaped runner, min 2-1/2 in. deep, with unequal legs of 1 in. and mina
2-3/16 in. fabricated from min 25 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. Runners may be supplied with securement tabs for gypsum liner panels (refer to Item 3).

PHILLIPS MFG CO — Type 2-1/2 in. J-Track-20, 6 in. J-Track-25, or in. J-Track-20, 4 in. J-Track-25, 4 in. J-Track-20, 6 in. J-Track-25, or in. J-Track-20, 4 in. J-Tr

Steel Framing Members (Steel Studs)* — "I" -shaped studs fabricat from min 25 MSG galv steel, min 2-1/2 in, deep, 1-1/2 in, wide. 5th contain 3/4 in, wide by 2-1/4 in, high holding tabs spaced 2-3/4in; OC. Cut to lengths 5/8 in, less than floor-to-ceiling height and spass.

24 in.

PHILLIPS MFG CO —Type 2-1/2 in. I-Stud-25, 2-1/2 in. I-Stud-20, 4 in. I-Stud-25, 4 in. I-Stud-20, 4 in. I-Stud-18, 6 in. I-Stud-6 in. I-Stud-20, or 6 in. I-Stud-18

3. Gypsum Board* — Gypsum liner panels, nom 1 in. thick, 24 in.

LOOK FOR THE UL MARK ON PRODUCT



703 east 1700 south salt lake city, utah 84105 ajc@ajcarchitects.com

aic architects

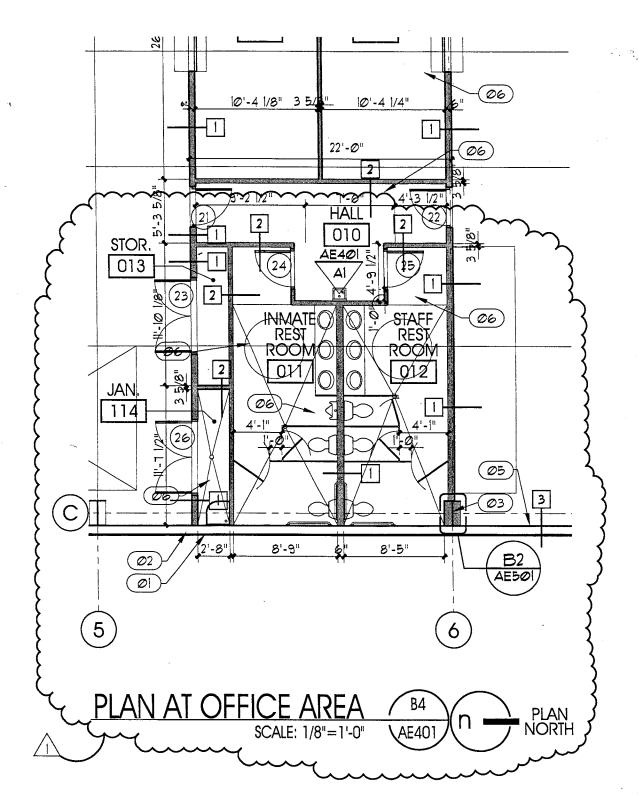
ph: 801.466.8818 fx: 801,466,4411 DRAPER PRISON ATE

UL DESIGN NO.

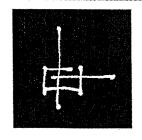
MAY 3, 2005

0502

V432 AD1.2



AN ORTH



703 east 1700 south salt lake city, utah 84105 ajc@ajcarchitects.com

ajc architects

ph: 801.466.8818 fx: 801.466.4411 MAY 3, 2005

REVISED REST

ROOM LAYOUT AD1.3

ADDENDUM

Project Name: ATE Center at Utah State Prison Addendum No.: 1

Date: April 29, 2005

From: WHW Engineering Inc

1354 East 3300 South Suite 200 Salt Lake City, Utah 84106

Phone (80) 466-4021 Fax (801) 466-8536

To: All Bidders

This Addendum forms and becomes a part of the Contract Documents and modifies the original Bidding Documents dated March 2005 as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of 4 pages, and 2 full size drawings.

I - CHANGES TO PRIOR ADDENDA: None

II - CHANGES TO BIDDING REQUIREMENTS: None

III - CHANGES TO AGREEMENT & OTHER CONTRACT FORMS: None

IV - CHANGES/CLARIFICATIONS TO CONDITIONS OF THE CONTRACT: None

V - CHANGES/CLARIFICATIONS TO SPECIFICATIONS:

Item V-1. Specification section 15484 paragraph 2.1 shall be modified to read as follows:

2.1 STANDARD WATER HEATERS

A. 40 Gallon

- 1. Glass lined storage tank pressure tested and rated for 125 PSI working pressure.
- 2. Water heaters shall each have ASME rated temperature-pressure relief valve rated at MBH input of heater minimum set to relieve at 120 psi.
- 3. Complete with thermostat, high limit control, and anode rod.
- 4. See drawings for KW input, voltage, height, etc.
- 5. Approved Manufacturers And Models
 - a. A O Smith ECL-40 or equal by
 - b. American
 - c. Ruud
 - d. State Industries

VI - CHANGES/CLARIFICATIONS TO DRAWINGS:

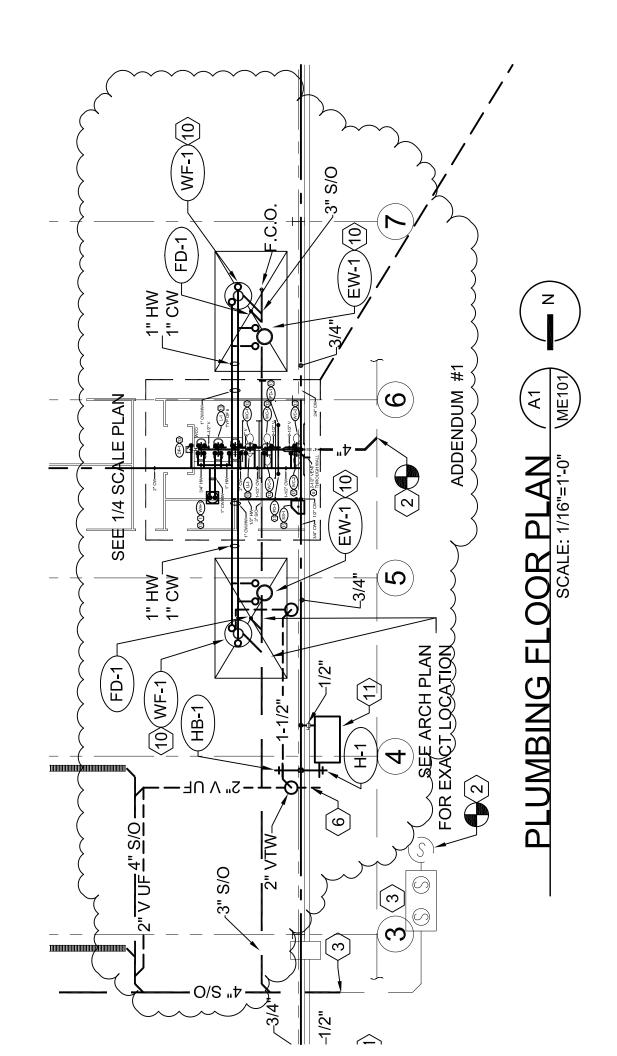
- Item VI-1. Sheet PE101 Add wash fountain and eyewash in woodshop area. Route waste line from both wash fountains and floor drains to sand and oil separator line. See attached revised sheet PE101(and 8-1/2 x 11 updated plan).
- Item VI-2. Sheet PE601 Electric water heater shall be a 40 gallon 4.5 KW heater. See revised sheet PE601 (and 8-1/2 x 11 updated plan).

PRIOR APPROVALS

THE FOLLOWING ITEMS, AS SUBMITTED, ARE CONSIDERED, IN GENERAL AND IN NAME ONLY, AS EQUAL TO THOSE ITEMS SPECIFIED. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF CONFORMING TO THE DRAWINGS AND SPECIFICATIONS FOR DIMENSIONS TO BE CONFIRMED AND CORRELATED AT THE JOBSITE AND FOR REQUIREMENTS OF THE SPECIFICATIONS FOR COORDINATION WITH OTHER TRADES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS AND THE SUITABILITY OF "EQUAL" PRODUCTS FOR THE SPECIFIED APPLICATION.

<u>Description</u> <u>Manufacturer</u>

15410 – Water closets, lavatories, urinals	Briggs/Sayco/ProFlo
15410 – Eyewash/drench shower	Encon
15410 – Wash Fountain	Willoughby
15484 – Thermal Expansion Absorber	Wilkins
15836 – Exhaust fans	Acme
15851 – Diffusers, Registers, and Grilles	Nailor



			PLU	MBIN	G FI	XTU	PLUMBING FIXTURE SCHEDULE
MADK	EIVTIBE		III	PIPE SIZE			ONGAMPO
V	1001	TRAP	WASTE	VENT	CW	M H	KEMARKS
WC-1	WATER CLOSET	INT.	4"	2"	1"	-	FLOOR MOUNTED, FLLUSH VALVE
WC-2	WATER CLOSET	INT.	4"	2"	1"	-	FLOOR MOUNTED, FLUSH VALVE, 17-1/2" RIM HEIGHT (ADA APPROVED)
(- <u>-</u>)	URINAL	INT.	3"	2"	3/4"	ı	WALL MOUNTED, FLUSH VALVE. (ADA APPROVED)
(<u>-</u>	LAVATORY	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	COUNTER TOP WITH LEVER HANDLES. (ADA APPROVED)
(F)	FLOOR DRAIN	2"	2"	1-1/2"	ı	ı	WITH DEEP SEAL P-TRAP AND TRAP PRIMER
TD-1	TRENCH DRAIN	3"	3"	2"	1	-	ZURN MODEL #Z-874-12
EW-1	EYE WASH/DRENCH SHOWER	1-1/2"	1-1/2"	1	1/2"	1/2"	BRADLEY MODEL #S19-310BF
WF-1	WASH FOUNTAIN	2"	2"	1-1/2"	1"	1"	BRADLEY MODEL #WF2708
SS-1	SERVICE SINK	3"	3"	2"	1/2"	1/2"	FLOOR TYPE CORNER SINK
HB-1	HOSE BIBB	-	-	•	1/2"	-	PROVIDE WITH LOOSE KEY HANDLE
(±)	WALL HYDRANT	-	-	1	3/4"	-	FREEZE PROOF WITH VACUUM BREAKER
L-FO	DRINKING FOUNTAIN	2/	[7]	1-1/2"	1/2"	-	ELECTRIC, SINGLE LEVEL, ADA APPROVED
	ELECTRIC WATER HEATER	ı	ı		} =	<u></u>	$4.5\mathrm{KW}$, $208/16/60$, $40\mathrm{GALLON}$, 33 " MAX HEIGHT, AO SMITH ECL- $40\mathrm{OR}$ EQUAL $\Big\}$

ADDENDUM #1

ATE CENTER AT UTAH STATE PRISON

DRAPER, UTAH

DFCM PROJECT NO. 04256100

April 29, 2005

ELECTRICAL ADDENDUM ITEMS

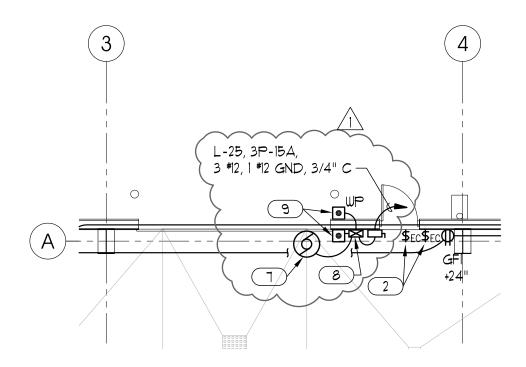
- 1. Add Electrical Service for Overhead Door Motors:
 - A. Provide electrical service to 3 exterior overhead door motors as shown on attached drawings EP101a, and EP102a.
 - B. Add (2) 3P-15A circuit breakers in Panel 'L' to serve the overhead door motors. Connect two overhead doors in Wood Shop to the same circuit.
- 2. Add Fire Alarm System Interlocks for Overhead Doors:
 - A. Provide an area smoke detector at each of 3 exterior overhead doors, located in accordance with NFPA 72, Section 5.14.6.5.
 - B. Provide two smoke detectors at Paint Booth overhead door located in accordance with NFPA 72, Section 5.14.6.5 and as follows:
 - One area smoke detector outside of Paint Booth and minimum 3 feet above the door opening.
 - One smoke detector located inside Paint Booth, approved for Class I, Division 1, Group D NEC Classified Hazardous Location. Conventional type smoke detector may be used and connected to an addressable monitor module located in a non-classified location outside of the Paint Booth.
 - 3) Paint Booth Overhead door will not be electrically operated but will be furnished with mechanism for door release service. See architect's addendum items.
 - C. Provide a fire safety function power relay controlled by an addressable relay module at each of 4 overhead doors. Interlock door controls with power relay to close door upon activation of the smoke detector at the associated door.
 - 1) Coordinate door interlock requirements with door supplier.
- 3. Change Location of Paint Booth Electrical Connections:
 - A. Change location of safety switches, starter/control panels, and electrical connections for Paint Booth Exhaust Fan '26a', Paint Booth Heaters '26b', and Paint Booth lighting and control circuits to locations shown on attached drawing EP102b.
- 4. Change Location of and Electrical Service for Dust Collector '37'.
 - A. Delete 120 Volt, and 208 Volt, 3 Phase Electrical Service to Dust Collector shown on Sheet EP102 including 3P-60A breaker in Panel 'C2', circuit #38.
 - B. Change rating of Dust Collector '37' to 480 Volt, 3 Phase, with 40 HP Supply Fan and (2) 2 HP Regeneration Fans.
 - C. Change location of Dust Collector '37' from west side of building to north end of building and provide electrical service as shown on attached drawing EP102d.

- 5. Change Electrical Service for Panel 'L':
 - A. Change Panel 'L' Main Breaker from 3P-175A to 3P-225A Main Breaker.
 - B. Change Transformer 'T1' from 112.5 KVA to 150 KVA.
 - C. Change Breaker for Transformer 'T1' primary, Panel 'M' Circuit #13, from 3P-400A to 3P-500A.
 - D. Change Transformer 'T1' Primary Feeder to 6 #250 KCM, 2 #2 Gnd, (2) 2-1/2" Conduit.
 - E. Change Panel 'L1' Feeder to 4 #4/0, 1 #2 Gnd, 2-1/2" Conduit.
 - F. Transformer 'T1' Ground Conductor to Building Steel shall remain #2.

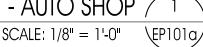
END OF ELECTRICAL ITEMS

KEYED NOTES:

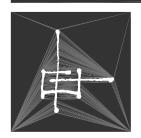
- * FOR SHEET EPIØIA ONLY
- 1 OVERHEAD DOOR MOTOR, I HP, 460 V, 3¢.
- 8 OVERHEAD DOOR MOTOR STARTER/CONTROL PANEL FURNISHED WITH OVERHEAD DOOR, TO BE INSTALLED AND WIRED COMPLETE BY ELECTRICAL CONTRACTOR.
- 9 OVERHEAD DOOR MOTOR "OPEN-CLOSE-STOP" PUSHBUTTONS FURNISHED WITH OVERHEAD DOOR, TO BE INSTALLED AND WIRED COMPLETE BY ELECTRICAL CONTRACTOR. VERIFY QUANTITY OF CONTROL CONDUCTORS REQUIRED WITH OVERHEAD DOOR SUPPLIER.











703 east 1700 south salt lake city, utah 84105 ajc@ajcarchitects.com

ajc architects

ph: 801.466.8818 fx: 801.466.4411 ATE CENTER AT UTAH STATE PRISON DFCM PROJECT NO. 04256100

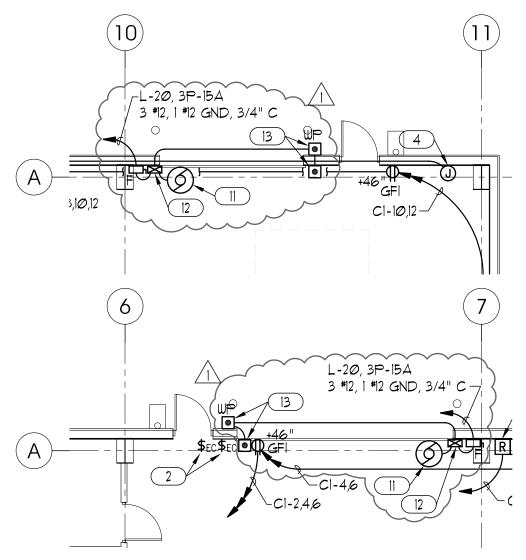
0502 4/29/05

PARTIAL REVISED POWER PLAN -

AUTO SHOP EP101a

KEYED NOTES:

- * FOR SHEET EPIØ2a ONLY
- II) OVERHEAD DOOR MOTOR, I HP, 460 V, 34.
- 12 OVERHEAD DOOR MOTOR STARTER/CONTROL PANEL FURNISHED WITH OVERHEAD DOOR, TO BE INSTALLED AND WIRED COMPLETE BY ELECTRICAL CONTRACTOR.
- OVERHEAD DOOR MOTOR "OPEN-CLOSE-STOP" PUSHBUTTONS FURNISHED WITH OVERHEAD DOOR, TO BE INSTALLED AND WIRED COMPLETE BY ELECTRICAL CONTRACTOR. VERIFY QUANTITY OF CONTROL CONDUCTORS REQUIRED WITH OVERHEAD DOOR SUPPLIER.



PARTIAL REVISED POWER PLANS - WOOD SHOP

SCALE: 1/8" = 1'-0"







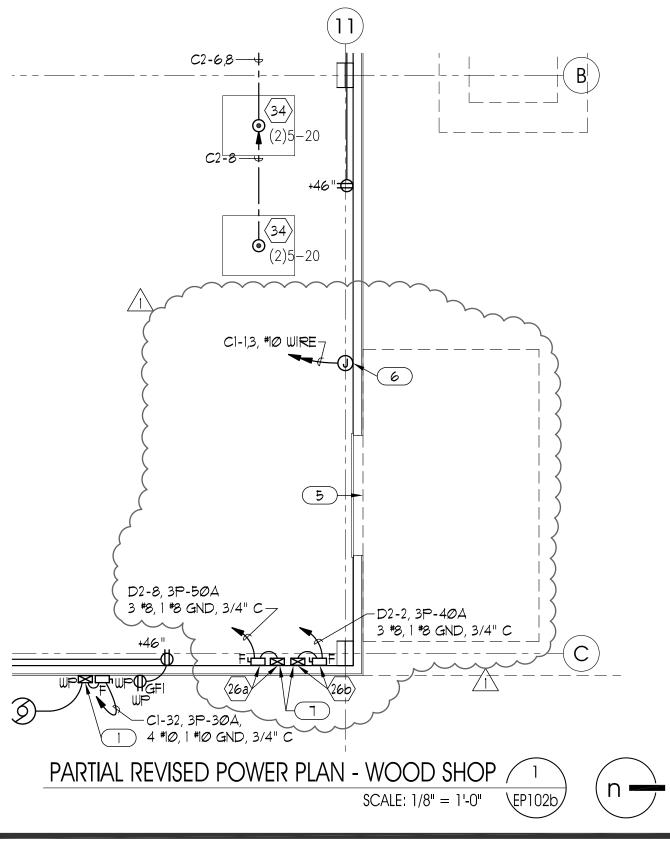
703 east 1700 south salt lake city, utah 84105 ajc@ajcarchitects.com

ajc architects

ph: 801.466.8818 fx: 801.466.4411 ATE CENTER AT UTAH STATE PRISON DFCM PROJECT NO. 04256100

0502 4/29/05

PARTIAL REVISED POWER PLAN - WOOD SHOP EP102a





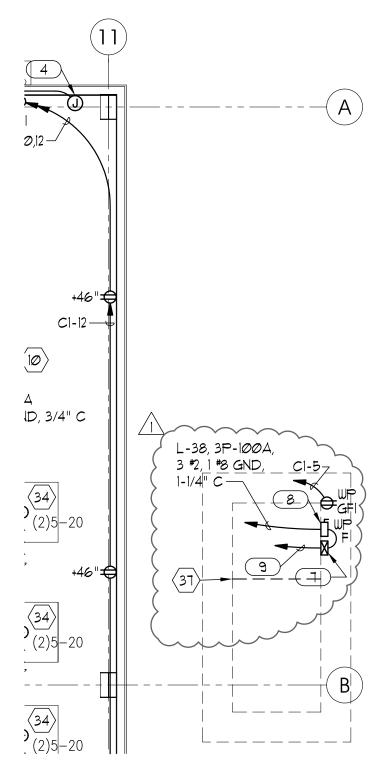
703 east 1700 south salt lake city, utah 84105 ajc@ajcarchitects.com

aic architects

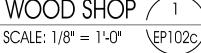
ph: 801.466.8818 fx: 801.466.4411 ATE CENTER AT UTAH STATE PRISON DFCM PROJECT NO. 04256100

0502 4/29/05

PARTIAL REVISED POWER PLAN -WOOD SHOP EP102b











703 east 1700 south salt lake city, utah 84105 ajc@ajcarchitects.com

ajc architects

ph: 801.466.8818 fx: 801.466.4411 ATE CENTER AT UTAH STATE PRISON DFCM PROJECT NO. 04256100

0502 4/29/05

PARTIAL REVISED POWER PLAN - WOOD SHOP

WOOD SHOP EP102C

SECTION 08331 - OVERHEAD COILING DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following types of electric-motor-operated overhead coiling doors:
 - 1. Insulated service doors.
 - 2. Fire-rated service doors.
- B. Related Sections include the following:
 - 1. Division 5 Section "Metal Fabrications" for miscellaneous steel supports.
 - 2. Division 8 Section "Door Hardware" for lock cylinders and keying.
 - 3. Division 13 Section "Metal Building Systems" for metal frames at exterior openings.
 - 4. Division 16 Sections for electrical service and connections for powered operators and accessories.

1.3 DEFINITIONS

A. Operation Cycle: One cycle of a door is complete when it is moved from the closed position to the fully open position and returned to the closed position.

1.4 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide overhead coiling doors capable of withstanding the effects of gravity loads and the following loads and stresses without evidencing permanent deformation of door components:
 - 1. Wind Load: Uniform pressure (velocity pressure) of 20 lbf/sq. ft. (960 Pa), acting inward and outward.
 - 2. Impact Test for Flying Debris: Comply with ASTM E 1996, tested according to ASTM E 1886.
 - a. Level of Protection: Basic Protection.
 - b. Wind Zone Exposure C: 90 mph (144 km/h), pressure test to 1/2 and 1-1/2 x design pressure (positive and negative).
- B. Operation-Cycle Requirements: Provide overhead coiling door components and operators capable of operating for not less than 10,000 cycles and for 10 cycles per day.

1. Include tamperproof cycle counter.

1.5 SUBMITTALS

- A. Product Data: For each type and size of overhead coiling door and accessory. Include the following:
 - 1. Summary of forces and loads on walls and jambs.
 - 2. Fire-Rated Doors: Include description of fire-release system including testing and resetting instructions.
- B. Shop Drawings: For special components and installations not dimensioned or detailed in manufacturer's product data.
- C. Qualification Data: For Installer.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for both installation and maintenance of units required for this Project.
- B. Source Limitations: Obtain overhead coiling doors through one source from a single manufacturer.
 - 1. Obtain operators and controls from overhead coiling door manufacturer.
- C. Fire-Test-Response Characteristics: Provide assemblies complying with NFPA 80 that are identical to door and frame assemblies tested for fire-test-response characteristics per UL 10b and NFPA 252, and that are listed and labeled for fire ratings indicated by UL, FMG, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Subject to compliance with requirements, provide products by one of the following:
 - 1. Alpine Overhead Doors, Inc.
 - 2. Atlas Door; Div. of Clopay Building Products Company, Inc.
 - 3. Cookson Company.
 - 4. Cornell Iron Works Inc.
 - 5. Dynamic Closures Corporation.
 - 6. Mahon Door Corporation.
 - 7. McKeon Rolling Steel Door Company, Inc.
 - 8. Metro Door.

- 9. Overhead Door Corp.
- 10. Pacific Rolling Doors Co.
- 11. Raynor.
- 12. Southwestern Steel Rolling Door Co.
- 13. Wayne-Dalton Corp.
- 14. Windsor Door, a MAGNATRAX Corporation.

2.2 DOOR CURTAIN MATERIALS AND CONSTRUCTION

- A. Door Curtains: Fabricate overhead coiling door curtain of interlocking slats, designed to withstand wind loading indicated, in a continuous length for width of door without splices. Unless otherwise indicated, provide slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:
 - 1. Steel Door Curtain Slats: Zinc-coated (galvanized), cold-rolled structural steel (SS) sheet; complying with ASTM A 653/A 653M, G90 (Z275) coating designation.
 - a. Minimum Base-Metal (Uncoated) Thickness: 0.0209 inch (0.55 mm).
 - b. Flat profile slats.
 - 2. Insulation: Fill slat with manufacturer's standard rigid cellular polystyrene or polyurethane-foam-type thermal insulation complying with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, according to ASTM E 84. Enclose insulation completely within metal slat faces.
 - 3. Inside Curtain Slat Face: To match material of outside metal curtain slat.
- B. Endlocks and Windlocks for Service Doors: Malleable-iron casings galvanized after fabrication, secured to curtain slats with galvanized rivets or high-strength nylon. Provide locks on not less than alternate curtain slats for curtain alignment and resistance against lateral movement.
- C. Bottom Bar for Service Doors: Consisting of 2 angles, each not less than 1-1/2 by 1-1/2 by 1/8 inch (38 by 38 by 3 mm) thick; galvanized, stainless-steel, or aluminum extrusions to suit type of curtain slats.
- D. Curtain Jamb Guides for Service Doors: Fabricate curtain jamb guides of steel angles or channels and angles, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Build up units with not less than 3/16-inch- (5-mm-) thick galvanized steel sections complying with ASTM A 36/A 36/M and ASTM A 123/A 123M. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent overtravel of curtain, and a continuous bar for holding windlocks.

2.3 HOODS AND ACCESSORIES

A. Hood: Form to act as weatherseal and entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Provide closed ends for surface-mounted hoods and provide fascia for any portion of between-jamb mounting projecting beyond wall face. Provide intermediate support brackets as required to prevent sagaina.

- 1. Fabricate hoods for steel doors of minimum 0.028-inch- (0.7-mm-) thick, hot-dip galvanized steel sheet with G90 (Z275) zinc coating, complying with ASTM A 653/A 653M.
- 2. Shape: Round.
- B. Integral Sills: Fabricate sills as integral part of frame assembly of same sheet metal; 0.078-inch (2.0-mm) minimum thickness.
- C. Weatherseals: Provide replaceable, adjustable, continuous, compressible weather-stripping gaskets fitted to bottom and top of exterior doors, unless otherwise indicated. At door head, use 1/8-inch- (3-mm-) thick, replaceable, continuous sheet secured to inside of hood.
 - 1. Provide motor-operated doors with combination bottom weatherseal and sensor edge.
 - 2. In addition, provide replaceable, adjustable, continuous, flexible, 1/8-inch- (3-mm-) thick seals of flexible vinyl, rubber, or neoprene at door jambs for a weathertight installation.
- D. Smoke Seals: Provide UL-listed and -tested smoke-seal perimeter gaskets.
- E. Push/Pull Handles: For push-up-operated or emergency-operated doors, provide galvanized steel lifting handles on each side of door.
 - 1. Provide pull-down straps or pole hooks for doors more than 84 inches (2130 mm) high.
- F. Fabricate locking device assembly with lock, spring-loaded dead bolt, operating handle, cam plate, and adjustable locking bar to engage through slots in tracks.
 - 1. Locking Bars: Full-disc cremone type, both jamb sides operable from inside only.
 - 2. Lock cylinder is specified in Division 8 Section "Door Hardware."
- G. If door unit is power operated, provide safety interlock switch to disengage power supply when door is locked.
- H. Provide automatic-closing device that is inoperative during normal door operations, with [oscillating] [viscous-speed] governor unit complying with requirements of NFPA 80 and with an easily tested and reset release mechanism, and designed to be activated by the following:
 - 1. Replaceable fusible links with temperature rise and melting point of 165 deg F (74 deg C); interconnected and mounted on both sides of door opening.
 - Manufacturer's standard UL-labeled smoke detector and door-holder-release devices.
 - 3. Manufacturer's standard UL-labeled heat detector and door-holder-release devices.
 - 4. Building fire alarm and detection system and door-holder-release devices.

2.4 COUNTERBALANCING MECHANISM

- A. General: Counterbalance doors by means of adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to door curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.
- B. Counterbalance Barrel: Fabricate spring barrel of hot-formed, structural-quality, welded or seamless carbon-steel pipe, of sufficient diameter and wall thickness to support rolled-up

- curtain without distortion of slats and to limit barrel deflection to not more than 0.03 in./ft. (2.5 mm/m) of span under full load.
- C. Provide spring balance of one or more oil-tempered, heat-treated steel helical torsion springs. Size springs to counterbalance weight of curtain, with uniform adjustment accessible from outside barrel. Provide cast-steel barrel plugs to secure ends of springs to barrel and shaft.
- D. Fabricate torsion rod for counterbalance shaft of cold-rolled steel, sized to hold fixed spring ends and carry torsional load.
- E. Brackets: Provide mounting brackets of manufacturer's standard design, either cast iron or cold-rolled steel plate.

2.5 ELECTRIC DOOR OPERATORS

- A. General: Provide electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycle requirements specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, remote-control stations, control devices, integral gearing for locking door, and accessories required for proper operation.
- B. Comply with NFPA 70.
- C. Disconnect Device: Provide hand-operated disconnect or mechanism for automatically engaging chain and sprocket operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount disconnect and operator so they are accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.
- D. Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency auxiliary operator.
- E. Provide control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24-V, ac or dc.
- F. Door-Operator Type: Provide wall-, hood-, or bracket-mounted, jackshaft-type door operator unit consisting of electric motor, enclosed gear-head-reduction drive, and chain and sprocket secondary drive.
 - 1. Through-wall-mounted motor operator.
- G. Electric Motors: Provide high-starting torque, reversible, continuous-duty, Class A insulated, electric motors complying with NEMA MG 1; with overload protection; sized to start, accelerate, and operate door in either direction from any position, at not less than 2/3 fps (0.2 m/s) and not more than 1 fps (0.3 m/s), without exceeding nameplate ratings or service factor.
 - 1. Type: Polyphase, medium-induction type.
 - 2. Service Factor: According to NEMA MG 1, unless otherwise indicated.
 - 3. Coordinate wiring requirements and electrical characteristics of motors with building electrical system.
 - 4. Provide open dripproof-type motor, and controller with NEMA ICS 6, Type 1 enclosure.

- 5. Provide totally enclosed, nonventilated or fan-cooled motor, fitted with plugged drain, and controller with NEMA ICS 6, Type 4 enclosure where indicated.
- H. Obstruction Detection Device: Provide each motorized door with indicated external automatic safety sensor capable of protecting full width of door opening. Activation of sensor immediately stops and reverses downward door travel.
 - 1. Photoelectric Sensor: Manufacturer's standard system designed to detect an obstruction in door opening without contact between door and obstruction.
 - a. Self-Monitoring Type: Designed to interface with door operator control circuit to detect damage to or disconnection of sensing device. When self-monitoring feature is activated, door closes only with sustained pressure on close button.
 - 2. Sensor Edge: Provide each motorized door with an automatic safety sensor edge, located within astragal or weather stripping mounted to bottom bar. Contact with sensor immediately stops and reverses downward door travel. Connect to control circuit using manufacturer's standard take-up reel or self-coiling cable.
 - a. Provide electrically actuated automatic bottom bar.
 - 1) Self-Monitoring Type: Four-wire configured device.
- I. Limit Switches: Provide adjustable switches, interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.
- J. Provide electric operators with ADA-compliant audible alarm and visual indicator lights.

2.6 FINISHES, GENERAL

- A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.7 STEEL AND GALVANIZED STEEL FINISHES

A. Baked Finish: Manufacturer's standard baked finish consisting of primer and topcoat according to coating manufacturer's written instructions for cleaning, pretreatment, application, thermosetting, and minimum dry film thickness.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install coiling doors and operating equipment complete with necessary hardware, jamb and head molding strips, anchors, inserts, hangers, and equipment supports.
 - 1. Install fire-rated doors to comply with NFPA 80.

3.2 ADJUSTING

A. Lubricate bearings and sliding parts; adjust doors to operate easily, free of warp, twist, or distortion and with weathertight fit around entire perimeter.

3.3 STARTUP SERVICES

- A. Engage a factory-authorized service representative to perform startup service.
 - 1. Complete installation and startup checks according to manufacturer's written instructions.
 - 2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 - a. Test door closing when activated by detector or alarm-connected fire-release system. Reset door-closing mechanism after successful test.

3.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain overhead coiling doors. Refer to Division 1 Section "Closeout Procedures and Demonstration and Training."

END OF SECTION 08331